# **A Concept of Management**

For the

# **Pigeon River Country** 2007 Update

(Originally adopted in 1973 and amended in 1983)

# **Foreword**

The Pigeon River Country (PRC) is indeed a special place held in trust for the people of Michigan. There are many fascinating sides to the story of this beautiful piece of our state – its rather unusual history, the way the elk herd began, the struggle for and against oil drilling, what's happened over the past quarter-century as a result, and what we might expect to happen in years to come. It's a rich story that has developed over more than a century of land use and abuse, a story that exposes human folly which appeared at the time to be wisdom, and human wisdom most thought folly at the time. When the Concept of Management for the Pigeon River Country (CONCEPT) was first adopted by the Michigan Department of Natural Resources (DNR) in December 1973, it represented the collective wisdom of many individuals. representing many organizations and interest groups, who all shared a common purpose – to protect the Lower Peninsula's last "Big Wild" from overuse and overdevelopment. 19th and early 20th century attitudes about treating natural resources as commodities, to exploit without restraint, had changed with the hard-won recognition that resources must be managed wisely if they are to be there for future generations.

One purpose of this updated Concept of Management is to make sure that overuse doesn't happen. P.S. Loveiov, a conservation leader of national stature in the first half of the 20<sup>th</sup> century, had seen firsthand too much of what had taken place here. A once pristine forest that had become a landscape denuded of trees; its rivers choked with sand and silt, a place bereft of wildlife. "It was Lovejoy who first recognized the Pigeon River Country as special. He called it 'the Big Wild'.... He led the charge to increase state holdings around the Pigeon River State Forest that started with 6,468 tax-reverted acres in 1919 and had expanded to over 19,200 by mid-1928, thanks to hunting license revenues." (Pfeifer 1974) "He viewed 'parked-up campsites', widening of county roads and other development as a 'poison' to the Pigeon River. He wanted a wild area..." (Cutler 1976) To protect its wild character from overuse, development will be more limited and people's activities will be more restricted here than on most other state forest lands.

THE PIGEON RIVER COUNTRY ADVISORY COUNCIL (COUNCIL) IS MADE UP OF EIGHTEEN CITIZEN MEMBERS, THREE EX-OFFICIO MEMBERS FROM THE DEPARTMENT OF NATURAL RESOURCES, AND ONE EX-OFFICIO MEMBER FROM THE DEPARTMENT OF ENVIRONMENTAL QUALITY WHO WAS ADDED TO THE COUNCIL IN 4995.1997 SINCE 1973, THE COUNCIL HAS WORKED TIRELESSLY AND WITH GREAT RESOLVE TO KEEP THE MANAGEMENT OF PIGEON RIVER COUNTRY IN LINE WITH THE CONCEPT, AND RESPONSIVE TO THE WISHES OF PEOPLE WHO USE IT, AND WHO MAY BE AFFECTED BY ITS USE AND MANAGEMENT.

Since 1973, the 18 citizen members and 3 ex-officio members from the Department of Natural Resources, and the Department of Environmental Quality ex-officio member that was added in 1995, who make up the Pigeon River Country Advisory Council (the "Advisory Council") have worked tirelessly and with great resolve to keep the management of Pigeon River Country in

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line with the Concept and responsive to the wishes of people who use it and who may be affected by its use and management.

During the past three decades, forest, wildlife and fisheries management practices have evolved with advances in scientific knowledge. Several large private tracts have been acquired by the state and added to the Pigeon River Country State Forest. Some state lands that had been managed by other FOREST MANAGEMENT Units have been added to the PRC. The area around the PRC has experienced growth, and patterns of recreational use have changed bringing new pressures to bear on the effort to protect the "Big Wild."

Recognizing these developments and changes, the Natural Resources Commission (NRC) Director of the Department of Natural Resources (Director) in 2005 convened a Steering Committee and initiated a process to update the Concept of Management. Amended Objectives and Management for the Concept were approved by the Natural Resources Commission in April 2005. The Steering Committee and various subcommittees then set about the task of updating the Concept as a whole.

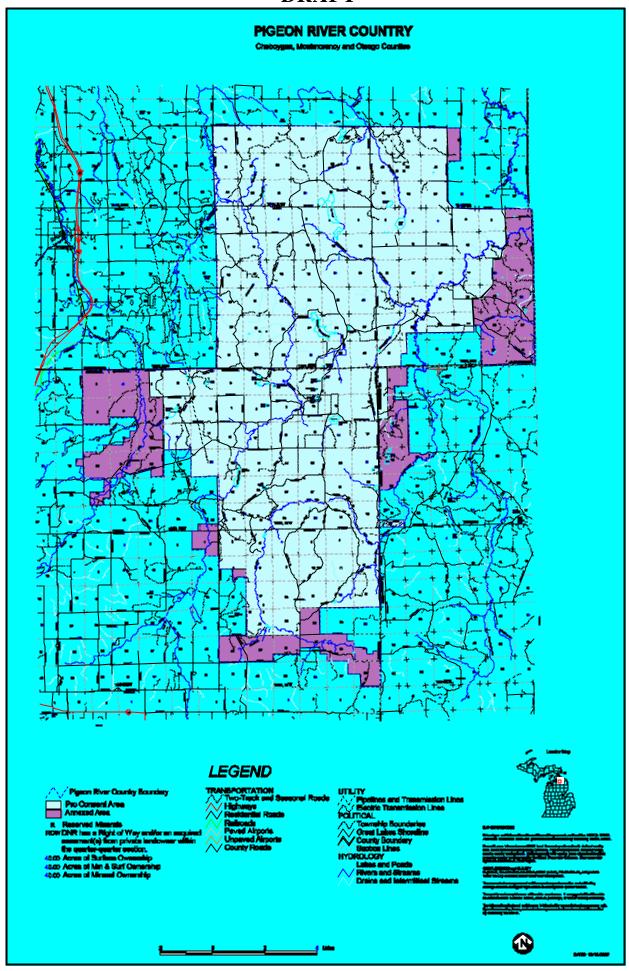
Through the efforts of the Advisory Council and others, the kind of citizen input that has done so much in the past is assured to continue in years to come to protect the wild character of this very special place.

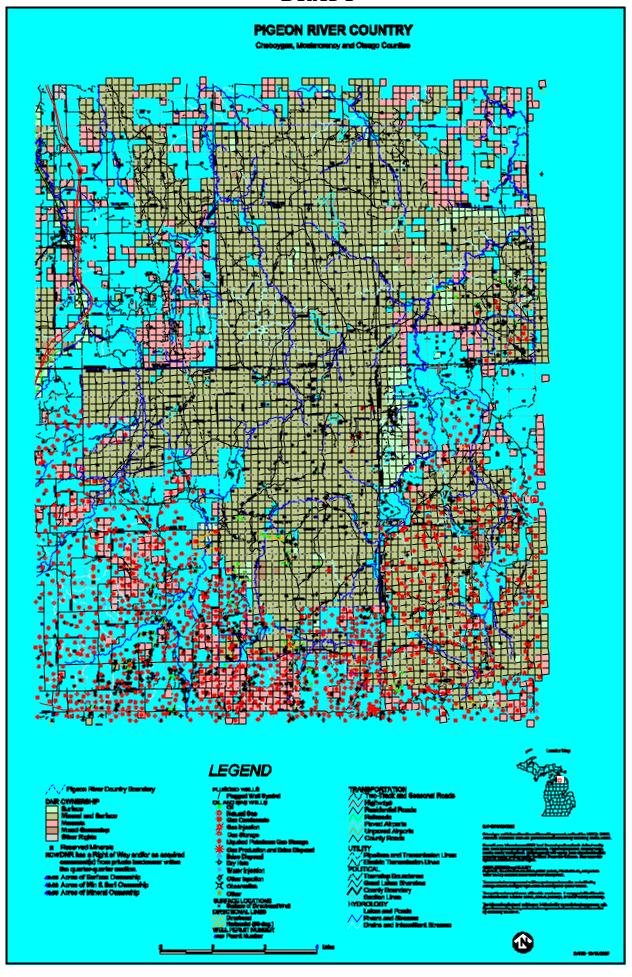
The Director may in the future initiate a process to further update this Concept of Management as necessary to fulfill the goals described in the section on Objectives and Management, as new opportunities and challenges present themselves. If the Advisory Council determines in the future that a further update of the Concept is warranted, it may submit a written recommendation to the Director requesting initiation of a process to do so, and specifying the nature and scope of any suggested update.

This updated Concept of Management is specific enough that it will provide clear guidance to the DNR, and will promote sound resource management to protect Pigeon River Country well into the future from activities which cannot be envisioned at this time. Principles underpinning this document that form much of the basis for direction are not likely to change in the foreseeable future. Knowledge and understanding, however, does change and this guidance encourages study, evaluation, experimentation and adaptation to continually improve the ability of managers to best meet the objectives of the Concept of Management for the Pigeon River Country.

# DRAFT Introduction

The Pigeon River Country State Forest, designated as a "special management unit," consists of approximately 180 (175?) 176 square miles (112,953 ACRES) that contain sparkling streams, clear lakes, wild, beautiful forests, dense swamps and rolling hills. This variety is found nowhere else in northern Lower Michigan. The PRC is large, varying from six to twelve miles in width, east to west, and is twenty miles from north to south, extending from southeastern Cheboygan County to northeastern Otsego County and northwestern Montmorency County. It is centrally located between the communities of Gaylord, Indian River, Onaway and Atlanta. Its western edge is one mile east of I-75. Its other boundaries are two miles south of M-68, two miles west of M-33, and four miles north of M-32. No major highway traverses it. Those roads which enter it lead to nowhere in particular, seeming to agree with individuals who feel it is sufficient just to arrive within this pleasant place.





#### **Boundary DESCRIPTION of the Pigeon River Country State Forest**

#### Cheboygan County:

T33N, R1E: sections 1-26, the N  $\frac{1}{2}$  and the NW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  and the N  $\frac{1}{2}$  of the SW  $\frac{1}{4}$ 

of section 27, the N ¾ of section 28, the N ¾ and the SW ¼ of the SW ¼ of section 29, sections 30 and 31, the W ½ of the NW ¼ of section 32, sections

35 and 36.

T33N, R1W: sections 1-36.

T34N, R1E: sections 19-21, W 1/2 of section 22, N 1/2 of the NW 1/4 of section 27, sections

28-33, that part of section 34 SW'ly of Centerline Rd.

T34N, R1W: sections 19-36.

#### **Montmorency County:**

T32N, R1E: W ½ of the NW ¼ and the NW ¼ of the SW ¼ of section 5, section 6 except the SE ¼ of the SE ¼ , section 7 except the NE ¼ of the NE ¼ , the W ½ of the SW ¼ and the SW ¼ of the NW ¼ of section 8, the W ¼ of section 17, sections 18 and 19, that part of section 20 West and South of Blue Lakes Rd. and N'ly and NW'ly of Black River, the part of section 30 N'ly of Hardwood Creek and W'ly of Black River, the S ¼ of section 31.

#### Otsego County:

T31N, R1W: sections 1-6, the N ½ and the SE ¼ North of Deer Trail of section 7, sections 8-17, sections 20 and 21, the W ¾ of section 22, the SW ¼ and the S ½ of the SE ¼ and the S ½ of the NE ¼ of the SE ¼ of section 25, section 26 except the NE ¼ of the NE ¼ , the N ½ and the NE ¼ of the SE ¼ of section 27, the N ¾ of section 28, sections 29 and 30, the E ½ of the NE ¼ of section 35, section 36 except the W ½ of the SW ¼.

T31N, R2W: section 1 except the S ½ of the SW ¼.

T32N. R1W: sections 1-36.

T32N, R2W: sections 1-5, section 8, the N ¾ of section 9, sections 10-15, the SE ¼ and the S ½ of the SW ¼ and the SE ¼ of the NE ¼ of section 16, the S 1/2 of the SE ¼ of section 17, the SE ¼ of the NE ¼ of section 19, section 20, section 21 except the SE ¼ South of E. Sturgeon Valley Rd., section 22 except the SW ¼ South of the E. Sturgeon Valley Rd., section 24, the E ½ of the NE ¼ and the N ½ of the SE ¼ and the SW ¼ of the SE ¼ and the E ½ of the SW ¼ of section 29, the S ¾ of the SE ¼ of the SE ¼ and the SW ¼ of the SE ¼ are the SW ¼ of the SE ¼ and the SW ¼ of the SE ¼ and the SW ¼ of the SE ¼ of the SE

Because of the absence of dwellings, cultivation, commercial enterprises and other signs of human activity, visitors to Pigeon River Country can enjoy a feeling of escape from today's fast-moving society. A flavor of wildness and peaceful beauty remains, and people are only occasional visitors. Loud, unnatural noises generally are infrequent and man-made constructions are scarce. True escape is possible here, and its therapy can be enjoyed by people of all ages.

Ninety-oneTHREE (94?) percent of Pigeon River Country is state forest land for the use of the people.

SEVERAL MEANS OF ACQUISITION HAVE CONTRIBUTED TO THIS CONSOLIDATED BLOCK OF STATE-OWNED LAND. THE PRIMARY FUNDING SOURCE HAS BEEN THE STATE GAME FUND, PURCHASING 53,640 ACRES.

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ACQUISITION SOURCE	<u>ACREAGE</u>
State Game Fund	53,640
Tax Reverted Acres	46,342
MNRTF	12,330
Game and Fish	236
Other	185
Gift	128
Special Legislation	80
Pittman Robertson	12
Total	112,953

The remainder is made up of private recreational retreats, a few permanent residences or vacant properties. Its size, the extent of its public ownership, and its disconnection from modern "progress", commercial development, crowds and traffic make it one of the largest remaining blocks of undeveloped land in the Lower Peninsula.

Its varying forests, gentle hills, lakes and clear streams, and dense swamps located in a largely wild area, have unique qualities. This Forest is the central range of the Michigan Elk Herd. Sighting these magnificent animals as a result of chance encounters is a great experience for many. The bugling of the bulls in the fall mating season provides a thrill, as does the discovery of a harem of between five and twenty cows, or a band of thirty or more animals.

Grouse, black bear, bobcat, woodcock, deer, beaver, and many other birds and animals are found in Pigeon River Country. The streams provide excellent conditions for healthy populations of trout, with native brook trout predominating in the upper reaches of the Pigeon River and all of the Upper Black River. The Sturgeon River is noted for its large brown trout. Several of the PRC's lakes are well-suited to a variety of warm water game fish.

# **History**

Most of northern Michigan, including Pigeon River Country, was logged between 1860 and 1910. Its magnificent pines went first. Many were floated to mills on the Black or Pigeon rivers, or the Sturgeon River to the west. Later, the area was veined with logging railroads which made it possible to reach timber away from the rivers, and allowed the loggers to cut the valuable and heavy hardwoods that could not be floated as easily as the pine. The logging was followed and in some areas preceded by disastrous, consuming forest fires that swept through the slashings and invaded the remaining timber repeatedly, even as late as the early 1930s.

In the midst of this vast sea of stumps were many efforts to convert the land to farming use. The first farms supported the work horses and oxen for the logging camps, and raised pigs, fruits and vegetables for feeding the logging crews. Hay and oats were grown for the work animals which were used for both logging and farming. When the logging ended, sawmills, mill towns and supporting farms died. There were very few roads, no industries, and climate and soils were not suitable for profitable farming.

The timber was gone. The streams had been cleared of fallen trees, scoured by the log drives, flushed by the release of dammed-up waters, spring after spring. Abandoned logging railroad grades reached in all directions, and cleared log-decking areas were visible at strategic points along the rivers and railroad grades. Farms were abandoned and forgotten, but their locations are marked where a few large, sod-bound fields can still be found. Some of the lakes were the repositories for slab wood, sawdust, and deadhead logs left after early logging. Broken logs, exposed and rotting ties, big pine stumps and burned snags made it as plain as the fence posts, lilac bushes, and barbed wire at the old homesteads, just what had happened here. Some of these can still be found. Pigeon River Country remained "off the beaten path," little noticed by the public while its forests and wildlife were recuperating and its waters began to return to natural conditions.

The abandonment of mills and farms, and tax delinquency, caused large parts of Pigeon River Country to revert to state ownership. P. S. Lovejoy, the primary architect of Michigan's Conservation Department organized in 1921, and now the Department of Natural Resources (DEPARTMENT OR DNR), had a vision of the area as the Lower Peninsula's "Big Wild." By 1919, the state had acquired 6,468 acres in northeastern Otsego County. In April of that year, Lovejoy's vision of sound resource management began to be realized with the official establishment of the Pigeon River Country State Forest (PRCSF), along with a resident custodian living in a farmhouse. The first planting of pine, a forerunner to a major effort to reforest these denuded lands, was made in 1920 when 81 acres were planted.

In 1924, the DNR established the Otsego Wildlife Refuge Unit east of Vanderbilt, in part concurrent with the Pigeon River Country State Forest. The seven mature elk, which had been released in 1918, were increasing in number and the refuge was intended to protect both them and the scarce deer in the area. For a short time a resident game keeper was assigned here, but by 1926 the entire state ownership was again administered by the supervisor of the Pigeon River Country State Forest. Most of the Otsego Refuge was leased, or under permit from private owners, until 1926 when 10,600 acres were purchased for \$3.75 per acre with Game and Fish Protection Fund money and added to the original 2,720 acres of the refuge.

In 1928, the Pigeon River Country State Forest included more than 19,200 acres and extended into Cheboygan County. Large acreages were purchased with sportsmen's dollars and acquired through tax reversion in the late '20s and through the 1930s. The lands purchased in

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Cheboygan County were designated as the North Pigeon River Refuge. Both the refuges and intermingled state forest lands were administered by the Department of Conservation.

In 1929, the Pigeon River Refuge was opened to hunting of deer, which no longer needed protection. The adjacent Otsego Refuge was kept closed to protect the elk, but a study showed the elk ranged onto nearby lightly hunted private hunting clubs which afforded them considerable safety, and in 1940 the Otsego Refuge also was opened for deer hunting.

Management during the first 20 years of state ownership consisted of forest fire protection, including building miles of firebreaks, many of which still are evident, protection of elk and deer from hunting, planting of pine, protection against timber thieves and squatters, and development of three campgrounds. After that, timber sales, limited at first by the immature forests and scarce markets, elk research, and fish planting and research came into the picture.

WHEN A CIVILIAN CONSERVATION CORPS (CCC) CAMP WAS ESTABLISHED IN 1933 ON THE OLD FARM LAND NEXT TO CORNWALL LAKE, THE BARREN LANDSCAPE WAS MADE UP OF FIRE-BLACKENED TREE STUMPS AND SPARSE BRUSH; YOUNG GROWTH OF SPRUCE AND CEDAR IN THE NARROW SWAMPS, AND A THICKET OF HARDWOOD SAPLINGS ON SOME OF THE UPLAND AREAS THAT HAD ESCAPED THE FIRES, WAS ALSO PRESENT.

Except for the young growth of spruce and cedar in the narrow swamps and a thicket of hardwood saplings on some of the upland areas that had escaped the fires, the barren landscape was made up of fire-blackened tree stumps and sparse brush, when a Civilian Conservation Corps camp was established in 1933 on the old farm land next to Cornwall Lake.

Obvious needs were dealt with by the vigorous youths of the CCC. Roads were built using the old railroad grades as foundations wherever possible. Almost one-third of the bare lands were hand-planted to native pines and were protected from fires by construction of a grid of interlacing fire-breaks, cleared to road width every quarter mile in the pine areas. CCC labor and spring thaws removed the worst of the debris in the streams and healed the eroding banks. Young seedlings and saplings, both natural and planted, grew in size and numbers. The forests grew and began to close the old fields. With so few people living in or using the area, wildlife flourished. The elk thrived and multiplied on the plentiful food supply and solitude to occupy this and the surrounding countryside.

In 1952, redistricting and renaming of state forest lands resulted in division of the original Pigeon River Country State Forest into four separate forests for administrative purposes. The division followed the county line between Otsego, Cheboygan and Montmorency counties, and a northerly extension of the Otsego-Montmorency County line (the base meridian) northerly through Cheboygan County. It left the lands in Otsego County in the Pigeon River Country State Forest, but transferred the northwesterly portions to the Hardwood State Forest, the northeasterly portion into the Black Lake State Forest, and the small acreage in Montmorency County to the Thunder Bay River State Forest. Administration was based in Gaylord, Indian River, Atlanta and Onaway, with no resident personnel or offices within the original Pigeon River tract. From 1952 until 1973, the old headquarters buildings were used as a laboratory and office for fisheries research; no longer as either forestry headquarters or as residences for anyone except on temporary assignments.

# Oil and Gas Development

In July 1970, a major oil and gas discovery was made in what was then is described as a "dome" in the Niagaran (now renamed Guelph Dolomite) formation. It triggered a series of events that forever changed the history of Pigeon River Country.

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The first well, officially designated "State Charlton 1-4," brought industrial activity, machinery, and noise. Dust and the odors of raw petroleum followed trucks, which began a continuous relay transporting oil over a wide, new road which had replaced a scenic, little-used forest trail. In short succession, three more successful and two unsuccessful wells were drilled in close proximity, adding to the activity and very visible changes that occurred in this formerly wild, quiet area

Viewing these sudden happenings as a threat of more to come, people who had enjoyed Lovejoy's "Big Wild" as a pleasant place of refuge from all such activities were alarmed to the extent that changes in Pigeon River Country became frequent topics of conversation in the local area.

The oil well was the trigger. but Those who previously had enjoyed their own unhurried pursuits in the PRC suddenly realized that changes were occurring and more could be expected. People began to become BECAME INCREASINGLY more concerned about plans for building or expanding campgrounds and pathways, timber harvests and wildlife habitat cuttings, and they began to see more visitors riding horses, and driving snowmobiles and off-road vehicles.

Within two years following the drilling of State Charlton 1-4, awareness of changes had stimulated interested individuals to action. The concerned individuals formed an association reflecting their desire to protect the surrounding area from further change. DNR personnel began to assess the situation and make recommendations for the future management of the area.

In July 1972, the newly formed Pigeon River Country Association (Association) requested the Natural Resources Commission to designate 127 square miles of state forest as a special management area, and sought protection against change and overuse, restrictions on vehicular traffic, the designation of the main streams as Wild Rivers, and a continuation of sound resource management, which they recognized as responsible for having helped to create the conditions which they enjoyed. The Association also asked for official designation of the Pigeon River Country State Forest and a plan of management for the area as assurance against unexpected and undesirable changes. The Association was joined by many others who also called for the protection of Pigeon River Country.

DNR fisheries and wildlife biologists, sharing the public's alarm over impending changes, submitted recommendations designed to protect the high quality trout waters and wildlife habitat found here. Foresters, charged with managing these lands for all uses, began to see not only the threats that others saw, but also the likelihood that some single interest or special interest groups, given special consideration or with stronger leadership, might harm or encroach upon the rights of other users, and that a balanced plan was needed to avoid such problems. Continued pressure for development of the oil and gas reserves, and the determination of the Association and many others to restrict and control that development, resulted in a multi-year battle in the circuit, appellate and supreme courts of Michigan. The outcome was that oil and gas exploration and development would be limited to roughly the southern third of the Forest; Shell Western Exploration & Production, Inc. would be the Unit Operator within the unit development area; and exploration and development would proceed as described in the 1980 Ingham County Circuit Court Judgment; the 1980 Amended Stipulation and Consent Order; and PA 316 of 19801980 PA 316.

Many specifications and techniques that were developed eventually influenced regulations for the entire oil and gas industry throughout the state. The first production well was drilled under the Consent Order on state land in 1981. The exploration and development phase continued through much of the 1980s. Following the final drilling plan that was submitted by Shell and approved by the Natural Resources Commission on September 11, 1987, the last production

well was drilled in August 1988. A total of 58 wells were drilled, of which 24 went into production.

The products from the 24 wells were processed at four different Central Production Facilities. Two, the Corwith 11 CPF and the Charlton 4 CPF, were inside the boundary defined by the 1980 Judgment, and two, the Forest 24 CPF and the Charlton 7 CPF, were outside of that boundary. By 1995, the six wells that were processed at the Corwith 11 CPF near Hardwood Lake had become marginal. The Corwith 11 CPF was dismantled, the wells were plugged and abandoned, and the sites were restored. As of early 2007, the other 18 wells continue to produce. Products from 15 of them are processed at the Charlton 4 CPF on Lost Cabin Road. In 2003, Merit Energy Company purchased Shell's assets in Michigan and became the Unit Operator in the Pigeon River Country State Forest.

# **More Recent Developments**

One outcome of the oil and gas controversy was the creation of the KAMMER Michigan Land Trust Fund (TRUST FUND) in 1976 (NOW KNOWN AS THE MICHIGAN NATURAL RESOURCES TRUST FUND). Advocates of the trust fund concept, including the Michigan United Conservation Clubs (MUCC), believed it fair and logical to use profit from public lands to enhance public ownership, thus compensating the public for intrusion on their lands with enhanced recreational opportunities. Lease revenues and royalties from State-owned lands would be used for the purchase of new recreational lands for public use.

Although the original purpose of the Fund-TRUST FUND was solely to preserve and protect Michigan's natural resources, its financial success made it a target to help balance the state budget. During its first seven years, more than \$100 million was diverted to other programs outside its original stated purpose.

Michigan voters then stepped in to approve a constitutional amendment in 1984, creating a new Michigan Natural Resources Trust Fund that provided protection from further diversions, except for a provision that transferred \$20 million each year to the state's Strategic Fund. This provision was reversed in another referendum overwhelmingly approved by Michigan voters in 1994.

As a result, more than 12,300 acres of land have been added to the PRCSF from trust fund purchases, the largest being the acquisition of the Green Timbers tract on the west side of the forest in 1982, and the major part of the former Blue Lakes Ranch on the east side of the forest in 1990. Both of these tracts have special restrictions on the use of motorized vehicles. Additional purchases within the PRCSF are high priority for DNR acquisition.

A number of privately owned blocks of land still exist in the PRC. Several are significant in size. The largest is the former Lansing Club, which now is owned by Golden Lotus, Inc. and is known as Song of the Morning Ranch. IN 1984 THE HYDROELECTRIC DAM, MANAGED BY OWNERS OF THE RANCH, HAD A SUDDEN RELEASE DRAINING THE IMPOUNDMENT. In 1984 the proprietors, who had been advised of the precarious condition of their hydro-electric dam on the Pigeon River, suddenly drained the impoundment in violation of DNR instructions, THIS causing CAUSED extensive downstream damage to the river and its ecosystem. Efforts to prevent the reconstruction of the dam were blocked, despite the Pigeon being designated a Natural River. In 1993, the Otsego County Planning Commission approved a Planned Unit Development (PUD) for this property that, if fully implemented, could result in a community of a few thousand people. The DNR objected to approval of the PUD because such a large number of people living in the PRC will negatively impact its wild character.

The original Concept of Management called for the formation of the Advisory Council to advise the Director, and maintain responsiveness of the Pigeon River Country management team to the interests of the people who use it. Since its inception, the Advisory Council has played an important role in the management of the PRC, including the legal requirement that the Advisory

Council be consulted on oil and gas exploration, and development matters required by the 1980 Ingham County Circuit Court Judgment. In addition to its involvement in oil and gas matters, the Advisory Council has played an important role in the development of policies and plans that are critical to accomplishing the Objectives of Management for the PRCSF. Among them was the Elk Management Plan, adopted by the Natural Resources Commission in 1984 and updated by the Director in 1988, and the 1990 Quiet Air Space Agreement with the Michigan Air National Guard.

The Advisory Council helped develop a 1988 Director's Order prohibiting ORV OFF-ROAD VEHICLE and ATV ALL-TERRAIN VEHICLE use in the PRCSF, as well as the 1990 Vehicle Access Plan that was designed to protect the PRC from incompatible use by motorized vehicles. The Plan was implemented in September 1991. That November, the Cheboygan County Road Commission challenged DNR authority to implement the Plan by removing 62 barriers. After a temporary restraining order was issued, a contravening decision by the Cheboygan County Circuit Court was issued in May 1992. The DNR appealed and in October the Court of Appeals issued a temporary stay of the Circuit Court decision. In June 1996, the court reversed the trial court judgment ruling in favor of the DNR. In 1997, the Michigan Supreme Court denied the request of the Cheboygan County Road Commission for further appeal, allowing the Court of Appeal's decision to stand.

In 1994, with input from DNR staff, the Advisory Council developed and recommended the DNR implement a horseback use plan to address the dramatic increase in horseback riding in the PRCSF. The Advisory Council also has challenged repeated efforts to establish a designated snowmobile trail through Pigeon River Country.

In 2002, a memorandum of understanding (MOU) between the Advisory Council and the Otsego County Road Commission was signed, to encourage cooperation in meeting the objectives of the Concept of Management between both organizations regarding county road projects in the PRCSF. The MOU states the road commission will seek input from the Advisory Council before finalizing road projects.

In 2006, DNR Procedure 26.04-04 established guidelines to enforce the rules for the use of state-owned Lands as revised in October, 2001. It both set SET BOTH general guidelines, as well as enabled individual DNR managers throughout the state to control all uses and especially commercial use of state lands.

Many cooperative efforts have taken place in the PRC. The original log office building, built by the CCC in 1934-35, burned on January 8, 1985. Rebuilt with the assistance of youths from the Michigan Civilian Conservation Corps, then stationed at nearby Camp Vanderbilt, and working under the guidance of a seasoned log-building contractor, and with generous private donations of more than \$87,000, the new building was dedicated in June 1991. The first log for its replacement was cut, as were all the others, within a half-mile of the site. The building now serves as the forest administrative office, the meeting place for the Advisory Council, and as an information center for the public. It is often staffed during peak visitor season weekends by volunteers from the Otsego County Retired and Senior Volunteer Program. Although the PRC manager is no longer expected to live at the Headquarters complex, one of the other log buildings that remain from the 1930s continues to serve as a temporary residence for researchers and others, such as the university student summer interns whose employment is funded by the Association.

There have been other cooperative efforts in the PRC involving a wide variety of individuals and organizations. Activities have ranged from individuals doing pathway maintenance to national organizations raising money for a specific habitat or research project. The enthusiasm for and the long-term interest in "helping out" at the PRC makes it impossible to list all of the people or

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organizations who have donated their time or money, but their efforts have helped make the PRC a special place.

# **Preparing for the Future**

The population of the northern Lower Peninsula of Michigan has been increasing, especially in Otsego County. Projections are that increase IN POPULATION will continue. This will make the wild values for which Pigeon River Country THE PRC is managed more attractive for tours and other commercial activities as the surrounding area becomes more developed. Increased nearby development will also make it harder to maintain the wild values of the PRC.

The second-growth forest, which began to replaced the original stands of pine and hardwood, began to mature by the 1970s. Improving markets for forest products since the mid-to late-1970s have provided the opportunity to actively manage forest cover types, while AND income from timber sales has helped support management of the PRC. However, the occurrence of Bovine Tuberculosis in the deer herd, the threat of Chronic Wasting Disease, the continued practice of baiting by hunters, plus recent changes in the forest products industry in the area, all pose challenges to meeting wildlife management goals for the PRC.

It is for these reasons that efforts to acquire further land holdings in the PRC continue to be crucial, with such groups as the Rocky Mountain Elk Foundation, the Headwaters Land Conservancy, and the Little Traverse Conservancy playing key roles. Equally important is the Pigeon River Habitat Initiative, which is a partnership of groups and individuals who are interested in encouraging private land owners in and near Pigeon River Country PRC to maintain their land in a forested condition.

# **Objectives and Management**

The Pigeon River Country has major distinguishing characteristics: it is a large, uninterrupted block of public forest in unspoiled, undeveloped condition, and is the heartland of Michigan's unique elk herd and other wildlife, fish and plant species. For these reasons, this statement of policy and guidelines was developed for the area in 1973, amended in 1983, and updated in 2005. These objectives are designed to protect the natural features of the area, while providing for other compatible uses without harming these important characteristics.

Historically, those who have offered their views in regard to this area recognized that management is necessary to maintain "The Big Wild" character of the forest.

This area and its surrounding environment, its forests, and its use by people are continuously changing. Those changes must be addressed to prevent undesirable development and use from occurring. To a great degree, this <u>can</u> be done. At least those elements of change which are disagreeable or damaging can be controlled, if not eliminated, through management.

It will be the policy of the Department of Natural Resources to manage the Pigeon River Country to protect and maintain the natural beauty of its forests and waters, and to sustain a healthy elk herd, fish, and wildlife populations.

<u>The DNR's objectives</u> are to manage and control activities so that those activities which are permitted are in keeping with the unique and wild character of the Pigeon River Country, and to protect the area from overuse and overdevelopment.

Within these policies and objectives, the DNR shall:

- 1. Manage the elk population and elk habitat so the Pigeon River Country State Forest remains the nucleus of Michigan's elk herd;
- 2. Provide needed habitat and seclusion for diverse fish and wildlife species;
- 3. Provide recreational opportunities for people in keeping with the wild character of the area and to provide peace and quiet through control of disruptive activities;
- 4. Manage game species such as woodcock, grouse, deer and others for hunting and viewing opportunities;
- 5. Protect water quality, stream habitat and manage the streams for a naturalized trout fishery, and the lakes for trout and game fish;
- 6. Manage forest resources in a sustainable manner for desired future habitat conditions;
- 7. Manage mineral resources in a manner consistent with existing legal requirements and these objectives; and
- 8. Protect Pigeon River Country from overuse and overdevelopment which could destroy its wild character.

These objectives are a framework from which detailed and specific short- and long-range programs of management will be developed and implemented.

These updated objectives were reviewed at the February and March, 2005 Natural Resources Commission meetings. (See Commission memo dated February 11, 2005 and resubmitted March 14, 2005.) The NRC and Director Humphries approved the updated objectives on March 14, 2005.

# **Forest Cover and Wildlife Habitat Management**

Pigeon River Country forests are still reacting to the large-scale cutting and uncontrolled fires that occurred prior to 1930. Beech-maple forests, white pine and red pine stands, and many lowland forest areas are beginning to take on characteristics different from the second-growth forest conditions evident during the 1950s through the 1970s. Short-lived species occurring in these stands, such as aspen, balsam fir and jack pine are disappearing; long-lived species, such as sugar maple, beech and white pine are achieving larger size and beginning to experience age-related mortality. In much of the area the development of current forest conditions occurred with the aid of planned silvicultural treatments. These conditions are favorable for people who value the characteristics of mature forests, and for the conservation of wildlife species and other biotic elements that depend on the same habitat qualities.

The 1984 Elk Management Plan called for maintenance of 600 to 800 elk; this objective was raised by the Natural Resources Commission to 800-900 in 1988. Active population and habitat management is essential to achieving the objectives outlined in both plans, as well as being the first objective listed in this plan.

To provide for important wildlife habitat objectives, many cover treatments since the 1960s have modified the natural succession and maturation of a significant portion of the Pigeon River Country State Forest (PRC). Cover treatments creating young forests since the late 1960s have provided habitat conditions integral to the maintenance of Michigan's elk herd. In addition to being critical to elk, these young forests provide important habitat for black bear, white-tailed deer, grouse, woodcock, beaver, snowshoe hare, coyote and bobcat, all species highly valued by forest recreationists.

# **Management Principles**

Manipulation of cover, whether by active intervention or absence of intervention, is the most important factor which influences wildlife populations, aesthetic values and recreation. Trees will be commercially harvested as the most efficient and economical means of management. Although not the primary objective, economic benefits will be derived from these treatments. The DNR must plan to protect biodiversity and produce cover conditions that will sustain desired species, elk in particular. Treatments ecologically appropriate for site conditions should be ensured by applying up-to-date habitat classification techniques.

# **Objectives**

#### Age Class Distribution

Adequate distribution and abundance of young, regenerating forest stands is critical to sustaining habitat for elk and many other species of wildlife requiring open or early successional habitats. For this plan, Young forests are defined as being 0-9 years in age. Clearcuts, and to a lesser extent seed tree and shelterwood cuts, are the three primary silvicultural methods used that result in even-age young forests. The cover types where even-age management will be applied are aspen, jack pine, low quality northern hardwoods, oak, red pine, lowland poplar, swamp conifers, paper birch, spruce-fir and white pine. CURRENT FOREST ANALYSIS SUGGESTS THAT JUST OVER 50% OF THE FOREST IS IN THOSE COVER TYPES THAT MAY BE MANAGED FOR EARLY-SUCCESSIONAL HABITAT. While maintaining 10 percent of the entire PRC in the 0-9 year age class is desirable from a wildlife TO MAINTAIN ADEQUATE ELK habitat standpoint, managing THE ENTIRE PRC for seven 7 to eight 8

percent IN EARLY-SUCCESSIONAL AGE CLASSES is the recommended objective. This difference between the desired level and the objective is based on a current forest composition analysis that shows that just over 50% of the PRC is in cover types that can be managed for an even age structure. Maintaining seven to eight percent in the 0-9 age class would be an increase from the current average of six percent. Movement above and below this percentage will occur as a result of the essentially even-age forest condition resulting from 19th century logging and subsequent fires. PRESENTLY, ABOUT 6% OF THE PRC IS IN THE 0-9 AGE CLASS. SOME MOVEMENT ABOVE AND BELOW THE GOAL IS ANTICIPATED OVER TIME DUE TO SKEWED AGE STRUCTURES IN KEY FOREST TYPES.

#### **Aspen Management**

Among the above-listed cover types that will be managed on an even-age basis, aspen represents the greatest acreage and is most important. Aspen occurs in a variety of stand conditions, from nearly pure stands to variable mixed stands. Aspen is important as a minor component of forest stands for its potential to establish a future aspen stand, as a food component, and as a source of future decadent trees. Forest stands, where aspen is the principal component, are considered an aspen type. Currently, approximately 27 percent of the PRC is classified as aspen. The objective will be to maintain at least 27% of the PRC as aspen. As the result of changing stand structure, composition and age, the percentage of aspen type may vary from this objective on an annual basis, even though the trajectory of the entire PRC is being managed toward it for the long term. Forest types which are likely sources of future aspen types are stands of low quality hardwood, red pine and white pine.

#### **Openings and Upland Brush**

Like early successional forests, openings provide key habitat components for elk, deer and a variety of birds, mammals, REPTILES, and AMPHIBIANS. herpetofauna. Upland openings are variable in character and value depending on soils, plant characteristics, size and where they occur relative to other forest habitats. Sparsely treed areas, shrub dominated sites, old fields, burns, frost pockets, formerly grazed sites, barrens and mechanically created fields are examples of various kinds of natural and man-made breaks in the forest. These openings may be semi-permanent but more often are transitory. Without intervention, most openings will convert to a forested condition. It is important that a diversity of open habitats be maintained and distributed throughout the PRC.

The 1973 Concept of Management included the goals of maintaining all openings where they occurred and doubling the amount of opening by creating 200 acres per year for 20 years. While openings were created and some of the existing openings were maintained, these goals were not met. The 1973 goals were largely influenced by the idea that elk needed a large amount of openings in the landscape. AT THE TIME OF THE 1984 ELK MANAGEMENT PLAN ABOUT 6.5% OF THE PUBLIC LAND ELK RANGE WAS CLASSIFIED AS OPENING. ELK NUMBERS HAD GROWN TO OBJECTIVE LEVELS, 600 TO 800, AND THE PLAN STATED THAT MAINTAINING CURRENT HABITAT CONDITIONS WOULD BE ADEQUATE TO SUSTAIN THE HERD. During the period from 1973 to 1993, elk numbers went from 200 to over 1350 animals. The understanding that elk could increase and be maintained at the established population goal without achieving the opening objectives is an important consideration for management. This increased understanding of the use and management of openings, along with changes in management priorities and funding, are all reasons why the 1973 goals were not fully met.

Current inventory data indicate that 2.8 percent of the PRC is classified as grass opening and 2.1 percent is upland brush. To provide improved year-round habitat conditions, particularly for elk, opening acreage should be increased. The combination of upland brush and grass opening cover should be increased to between six 6 and seven 7 percent of the PRC. Meeting this objective will reverse the long-term trend of openings and upland brush converting to other types. Maintenance of this percentage should be done through a variety of practices that

include prescribed fire, tree harvesting without regeneration, selective use of herbicides, mechanical and farm-type practices.

Openings and upland brush should be evaluated relative to quality and distribution of habitat for wildlife species utilizing these habitats throughout the year. Enhanced openings maintained by fertilizing, seeding and mowing are an important component, and will be maintained in a manner and on a scale that provides attractive forage for elk and deer but is sensitive to aesthetic values expressed as objectives elsewhere in this document.

#### **Mast Production**

Red, white, black, and NORTHERN pin oak, AND BEECH should be maintained or increased to the extent feasible. IF SILVICULTURALLY APPROPRIATE within the PRC. These key mast producers are important to a wide variety of wildlife species. Where oak occurs in stands that are being regenerated, a significant component shall be retained for mast production. The maintenance of oak as a component of other cover types is desirable and should be achieved with plantings or other silvicultural treatments.

#### NORTHERN HARDWOOD MANAGEMENT

NORTHERN HARDWOOD FORESTS IN THE PRC ARE DOMINATED BY SUGAR MAPLE AND BASSWOOD. BEECH, WHITE ASH, IRONWOOD, RED MAPLE, RED OAK, ASPEN, AND PAPER BIRCH ARE OTHER DECIDUOUS SPECIES THAT ARE ALSO PRESENT. HISTORICALLY, HEMLOCK AND WHITE PINE WERE WELL REPRESENTED IN THIS FOREST COMMUNITY BUT ARE CURRENTLY MUCH LESS COMMON.

THE NORTHERN HARDWOOD TYPE IS IMPORTANT TO A WIDE VARIETY OF WILDLIFE SPECIES, INCLUDING GAME AND NON-GAME MAMMALS, AND SEVERAL BIRD GROUPS. BEECH AND OAK, WHEN GOOD SEED YEARS OCCUR, PROVIDE AN IMPORTANT FOOD SOURCE WHICH ATTRACTS EVERYTHING FROM ELK TO BLUE JAYS. SEEDS FROM ASH, BASSWOOD AND MAPLE ARE ALSO USED BY SMALL MAMMALS AND BIRDS.

HARDWOOD FORESTS WILL BE MANAGED TO MEET FOUR MAIN OBJECTIVES. FIRST, IS TO SUSTAIN A DIVERSE MIX OF NATIVE TREE SPECIES IN AN UNEVEN AGED CONDITION THROUGH SELECTION HARVESTS AND NATURAL REGENERATION. BIG TREE MANAGEMENT (RETAINING CROP TREES TO A LARGER THAN NORMAL SIZE) WILL OFTEN BE PRACTICED TO PRODUCE AESTHETICALLY APPEALING STANDS AND TO PROVIDE GREATER HABITAT DIVERSITY. SECOND, IS MAINTENANCE OF MAST PRODUCERS; THE BEECH AND

OAK COMPONENT WILL TYPICALLY BE MAINTAINED OR INCREASED, BEECH BARK DISEASE NOTWITHSTANDING. THIRD, RECRUITMENT OF HEMLOCK AND WHITE PINE AS A COMPONENT OF HARDWOOD STANDS WILL BE ENCOURAGED. FOURTH, RETENTION AND DEVELOPMENT OF LARGE DEN AND CAVITY TREES, STANDING DEAD SNAGS AND COURSE WOODY DEBRIS WILL BE EMPHASIZED.

A LIMITED ACREAGE OF LOWER QUALITY NORTHERN HARDWOODS MAY BE MANAGED IN AN EVEN-AGED MANNER TO PROMOTE ASPEN, OAK, OR PINE, OR TO REPRODUCE A SIMILAR STAND. ADDITIONAL ACRES OF NORTHERN HARDWOODS WILL BE ADDED IN THE PRC THROUGH NATURAL REGENERATION FOLLOWING HARVEST OF RED PINE PLANTED ON HARDWOOD SOILS.

#### LOWLAND CONIFER MANAGEMENT

LOWLAND CONIFER STANDS PROVIDE IMPORTANT WILDLIFE HABITATS AND ARE IMPORTANT FOR SUSTAINING HIGH QUALITY WATERS. REGENERATION OF LOWLAND CONIFERS, ESPECIALLY WHITE CEDAR, IS UNPREDICTABLE GIVEN TODAY'S SCIENCE AND IS AFFECTED BY COMPLEX ENVIRONMENTAL AND BIOLOGICAL FACTORS. CURRENTLY THERE IS LITTLE TREATMENT OF LOWLAND CONIFER STANDS IN THE

PRC. AS IMPROVED TECHNIQUES FOR MORE PREDICTABLY REGENERATING LOWLAND CONIFERS ARE DEVELOPED, MANAGEMENT TOWARD THE APPROPRIATE MIX OF ACREAGES AND AGE CLASSES WILL BE DEVELOPED.

#### **Pine Management**

Stands that are predominantly red, white or jack pine presently total 20.5 percent of the PRC. Although there are significant plantation acres (mostly red pine), most pine stands are mixed species stands. Many have all three pine species as well as a deciduous component that typically is aspen and/or red maple. Red oak, sugar maple, beech, basswood, and other deciduous species are commonly present. Mixed pine stands provide significant wildlife habitat, especially for elk. In general, the objective will be to manage for stands that include mixed conifer and deciduous species. Natural regeneration will be the primary means of establishing regeneration. Planting will be used where natural regeneration is not successful and pine management is the objective. Planting usually will not be the first choice for regeneration.

Many acres of red pine plantations are on sites better suited to other tree species, especially northern hardwoods. As the pine on these sites is harvested, the management objective frequently will be to allow them to convert to northern hardwoods. In some cases, they may provide opportunities to be managed as grass openings or upland brush.

Pine stands with an oak component will be managed to maintain and/or increase the oak component. Pine stands with a significant component of aspen and/or jack pine will be managed to maintain or increase the aspen and/or jack pine component. Where opportunities exist, conversion to predominantly aspen and/or jack pine is encouraged.

The rotation length will be modified to better maintain the aspen and/or jack pine component for most stands that are predominantly red pine and/or white pine, with a significant component of aspen and/or jack pine. The aspen and jack pine in those stands would be regenerated twice while the red and white pine would be regenerated once in a rotation.

Pine stands in some areas will be managed on an extended rotation of 140+ years, if they are predominantly red pine and/or white pine on sites with a high suitability for pine, and if they are in travel corridors (vehicle and/or pathway) that present opportunities for aesthetic enhancement.

#### **Treatment Size**

Generally, even-aged management where less than 8% of the stems or less than 10 square feet of basal area are retained should result in treatment areas of no more than 40 acres. Clearcuts must be separated by time or distance sufficient so as not to appear as a single treatment. Exceptions may be justified for pest management purposes, to achieve specific wildlife habitat goals, or to minimize a potential environmental impact of treatment. The Advisory Council should be consulted in these instances.

# **Aesthetics, Seasonal Restrictions**

Aesthetic values are important to all users of Pigeon River Country and care must be taken to consider the views created by cover management treatments. To the extent that it does not interfere with overall cover objectives, strategic application of species retention in harvest areas as well as in boundary establishment will enhance wildlife habitat values and visual appeal.

Seasonal restriction on use of mechanized equipment for the protection of wildlife (including threatened and endangered species), vegetation, soils, aquatic resources, and to control insect pests and disease, is an important management tool. Blanket guidelines are not necessary.

# Removal of Buildings, Structures and Facilities

Except as needed for management purposes, buildings, structures and facilities on acquired private lands that are added to the PRC shall be removed and/or disposed of as soon as PRACTICAL.

# **Access Management**

Access management is critical to the objective of maintaining the wild character of Pigeon River Country. Reduced road density provides for more area minimally affected by motorized vehicles. Disturbance levels then are reduced for all recreationists and wildlife. Where cover management activities open or reopen new routes in the PRC, restoration of prior access conditions must be made part of the treatment plan and follow-up.

# **Natural Areas, Special Conservation Areas**

Within the PRC a number of diverse areas have been chosen to be managed for unique values, to contribute to the conservation of biological diversity, and to serve as ecological reference areas. The form of designation is varied. The Pigeon River and some tributaries are managed under the Natural Rivers Act. Three areas, the Pigeon River Pine Natural Area, the Grindstone Creek Wild Area and the Dog Lake Wild Area, have been nominated for inclusion under the Wilderness and Natural Areas Act. In addition, other parts of the PRC have been designated as Special Conservation Areas. These areas include the Dog Lake Special Management Area, which is associated with the Dog Lake Wild Area; the Sturgeon River valley within the Green Timbers tract; a hardwood stand on Tin Shanty Bridge Road; and other areas of special value or interest.

Within these referenced areas cover management will be restricted to only those treatments that protect or enhance the characteristics or processes for which they were selected. The DNR will include Pigeon River Country in regional biodiversity conservation planning during which additional locations may be nominated. The Advisory Council should WILL be informed and given opportunity for input in that process.

Although important to sustaining biological diversity, designated areas on which little or no vegetative treatments occur cannot alone provide for sustainability. Cover management on the rest of the PRC will be conducted in a manner which applies the best knowledge and techniques to enhance wildlife habitat quality, and conserve natural communities. Adaptive management will be applied and Pigeon River Country should WILL continue to be open to research and experimentation.

#### **Silvicultural Variations**

In the implementation of forest inventory, habitat planning and development of treatment prescriptions, recognition of biological and social values must be given priority with consideration for economical values. Conforming to standard silvicultural guidance will be given less importance in some instances. Opportunities for conserving or developing special or unique qualities found at the stand level will sometimes be implemented. Extended pine rotation, preserving a viewscape, retention of cull and mast trees above standard levels, protection of unique shrub communities, or protection of hemlock stands are a few examples. A process must be maintained that identifies and secures the future of such sites and provides for a decision review process in their management.

# **Aquatic Resources**

The fundamental objective for management of aquatic resources will be to protect and enhance those aquatic species most suited to the habitat types available within the Pigeon River Country. Because of the relatively stable flows and cool summer water temperatures, the key species of fish in area streams have been brook trout, brown trout, AND RAINBOW TROUT, with the Black River and tributaries known almost exclusively for brook trout fishing. Fisheries management strategies will continue to focus primarily on these species of fish, and the habitats upon which they depend, in the future. Historically, general, statewide regulations for trout fishing have been applied to the streams in the Pigeon River Country. It is recommended that the FISHING REGULATIONS ON THE Pigeon River, the Upper Black River, and the Sturgeon River be reviewed TO ENSURE THE MOST APPROPRIATE REGULATIONS ARE IN PLACE ON EACH STREAM and considered for reclassification to a type 5, 6, or 7 trout stream. Such reclassification would provide for additional protection of trout through restrictions on tackle, lower creel limits, and higher size limits. Review and consideration of changes to the regulatory classification of a stream, or section thereof that is managed for trout will be determined using the guidance documented in Fisheries Order 213, "Criteria for selection of trout streams with gear restrictions regulations."

Lakes containing species of fish other than trout will be managed to protect and sustain those species of fish, and the habitats upon which they depend, that provide recreational opportunities appropriate for each individual lake, using the guidance documented in Fisheries Order 244, "Guidelines for selection of quality non-trout fishing lakes."

In 1982, the Pigeon River became a state designated Natural River in the Wild and Scenic River classification. It is recommended that the Upper Black River and tributaries, and the Sturgeon River and tributaries, be reviewed and considered for designation as Natural Rivers.

Activities conducted within riparian areas often affect the nearby waterbodies and the organisms within those waterbodies. All waters will be protected from destructive use by appropriate management of the riparian corridor, using best management practices as outlined in the DNR publication "Water Quality Management Practices on Forest Lands" (1994), and by using an ecosystem management approach when considering forest treatments within the riparian corridor. Habitat management plans to improve, or add cover or shoreline protection, will employ soft-engineering techniques when practicable POSSIBLE, and will be constructed of materials designed to maintain a natural appearance.

Adequate recreational access to water is necessary to facilitate the public's enjoyment of the state's aquatic resources. The amount and type of access to water within the Pigeon River Country, however, must be in harmony with the wild character of the area, balancing the need for access with the desire to protect the resource from overuse.

The use of a vessel powered by any motor other than an electric motor is prohibited on THE BLUE LAKE RANCH LAKES, Cornwall Impoundment, Dog Lake Flooding and Pickerel Lake. In keeping with the objective for the Pigeon River Country to provide quiet recreational experiences, regulations of this type will be encouraged on water bodies within the PRC.

The following principals PRINCIPLES will guide the management of aquatic resources with WITHIN the Pigeon River Country:

- Streams will be managed to protect and sustain populations of wild trout and the habitat upon which they depend. Therefore, the stocking of hatchery-reared trout will be prohibited, unless required to mitigate for an unforeseen disaster that significantly depletes existing populations of wild trout and replacement of trout stocks from other wild sources is not practicable FEASIBLE.
- 2. Fishing regulations placed on a stream, or section thereof, or a lake that is managed for trout will be chosen from the standard suite of regulation types available for trout streams or trout lakes, respectively. An appropriate regulation for a stream, or section thereof, will be determined using the guidance documented in Fisheries Order 213, "Criteria for selection of trout streams with gear restrictions regulations."
- 3. Lakes containing species of fish other than trout will be managed to protect and sustain those species of fish, and the habitats upon which they depend, that provide recreational opportunities appropriate for each individual lake. Specific management actions may include the establishment of restrictive fishing regulations using the guidance documented in Fisheries Order 244, "Guidelines for selection of quality non-trout fishing lakes." Additionally, fish community manipulations such as fish stocking or lake reclamation may be used to rebalance fish communities, and/or to improve the health and age structure of existing fish populations.
- 4. Hemlock, North Twin, South Twin, Lost, West Lost, Section 4, and Ford lakes have historically been used for research purposes, and therefore have been closed to fishing. However, these small lakes offer the potential for unique fishing opportunities. They should be managed for the appropriate species of fish that will provide recreational fishing opportunities, so long as any increased activity related to fishing does not result in environmental degradation. When, and if any lake is required for research purposes, that lake may be closed to fishing.
- Timber harvest and other strategies used to manage vegetative cover within any riparian area will be coordinated with all DNR resource management programs USING DNR GUIDELINES FOR EVALUATING RIPARIAN MANAGEMENT ZONES ON STATE LANDS.
- 6. Management activities on streams, lakes, or shorelines required to address erosion control, fish cover, or for convenience of people will employ soft-engineering techniques and be designed to appear natural in keeping with the surroundings, to the extent practicable FEASIBLE.
- 7. The use of a vessel powered by any motor other than an electric motor on waters in the Pigeon River Country will be discouraged SHOULD BE PROHIBITED, except that vessels for accomplishing research, assessment, habitat improvement or enforcement activities related to the management of aquatic resources in the area are not subject to such prohibition.
- 8. Natural flow conditions of streams in the Pigeon River Country should be maintained, and rehabilitated when feasible. Mitigation for the negative effects of existing dams on the aquatic resources of the Pigeon River Country, including removal of such dams, is encouraged. Construction of new dams, or repairs to existing dams in lieu of complete removal, is not recommended and should be discouraged.

# **Recreation and Law Enforcement**

To protect the wild character of Pigeon River Country PRC, people's activities, their distribution, numbers, and the effects that result must be controlled. This will be accomplished through education, by encouraging recreational pursuits which are in harmony with the special values and natural resources of Pigeon River Country PRC, and through regulation and law enforcement.

Enforcement of natural resource regulations in Pigeon River Country should be a priority for the Law Enforcement Division. Regular patrols by conservation officers should be required through work plans, and high visibility of other Pigeon River Country employees making contact with users shall encourage compliance with regulations.

The Pigeon River Country cannot be all things to all recreation users. The nature and types of recreational pursuits are ever changing and, therefore, rules, regulations and guidelines governing permitted activities will require continual review and development. Some recreational restrictions are necessary to protect and enhance the goals and objectives of the PRCSF. The following criteria must be considered when evaluating any new or changing activities, to ensure they do not exceed the Pigeon River Country's recreational carrying capacity or degrade the quality of the PRC.

#### **Recreational Use Criteria**

- The activity or use should have low impact, leaving minimal footprint on the PRC.
- The activity should not be detrimental to SUSTAINING WILDLIFE POPULATIONS wildlife.
- The activity should not create noise that interrupts the solitude of the PRC.
- The activity should not concentrate larger groups of people and/or vehicles.
- The activity should not create the likelihood of user conflicts.
- The activity should not lead to more facilities and more infrastructures.
- The activity should not degrade or be inconsistent with the wild character of the PRC.
- The activity should be associated with experiencing the wild character of the PRCSF.

# **Management Objectives**

#### **Wheeled Motorized Vehicles**

State licensed motorized vehicles shall be allowed to travel only on roads as governed by local and state laws. EXCEPT FOR ON THE EXISTING DESIGNATED MICHIGAN CROSS COUNTRY CYCLE TRAIL IN THE NORTHEAST CORNER OF THE FOREST, Operation of ORVs within THE Pigeon River Country PRC shall be prohibited. (USE OF THE EXISTING DESIGNATED MCCCT TRAIL IN THE ANNEXED AREA AT THE NORTHEAST CORNER OF THE PRC MAY CONTINUE, PENDING REVIEW OF THE VEHICLE ACCESS PLAN.) The DNR reserves the right to use these vehicles outside the above guidelines for management purposes.

#### **Snowmobiles**

Snowmobiles shall be allowed only on COUNTY AND STATE FOREST roads identified as open on the Pigeon River Country State Forest Vehicle Access Map AS APPROVED BY THE DIRECTOR. No roads or trails shall be used as a designated snowmobile route. The DNR reserves the right to use these vehicles outside the above guidelines for management purposes. OFF-ROAD SNOWMOBILE USE SHALL BE PROHIBITED.

#### Camping

Camping is permitted in Pigeon River Country PRC in designated campgrounds, and DISPERSED CAMPING IS PERMITTED AT LEAST ONE MILE FROM DESIGNATED STATE FOREST CAMPGROUNDS UNLESS OTHERWISE CLOSED BY A DIRECTOR'S ORDER, using a camp registration card. Camping currently is restricted in some areas and it may be in other locations in the future. Camping equipment, such as large camping rigs, generators, entertainment systems, that are in conflict with the recreational use criteria should be further restricted. Continued review of camping regulations will be necessary in order to ensure a shared enjoyable experience, while protecting the values of Pigeon River Country PRC.

#### Pathways (non-motorized trails)

The marked pathways in Pigeon River Country PRC should remain in their natural state as much as possible and improvements, such as boardwalks or bridges, should be made only to protect the resource, for public safety AND DESIGNED TO BE IN KEEPING WITH PRC CHARACTER. Activities that will have a negative affect on the resource, or the use of others should be prohibited.

#### Canoes, Kayaks, Tubes and Other Watercraft

Commercial livery use of State lands on the Forest IN PIGEON RIVER COUNTRY PRC shall be prohibited. Sweeps and woody debris which are necessary to maintain fish habitat and natural conditions shall be managed conservatively. Any clearing of waterways to aid in navigation will be discouraged. Motorized watercraft, except for electric motors, shall SHOULD be prohibited unless necessary for management and enforcement purposes. Activities that will have a negative affect on the resource, or the use of others should be prohibited.

#### Information and Education

The DNR will provide information about the area, maps of trails and roads, and restrictions which must be observed by PRC users. The Headquarters provides a great opportunity for public interface and should be open to the public as much as possible.

#### Harvesting of Berries, Mushrooms, Nuts, Etc.

Berry, nut, and mushroom pickers are welcome. Gathering for other than personal use shall be prohibited.

#### **Hunting, Trapping and Fishing**

Hunting, trapping and fishing are encouraged. Wildlife, from elk to grouse to trout, as well as the land itself, is one of the most important values in Pigeon River Country PRC. Properly regulated hunting, trapping and fishing has no harmful impact on those resources.

#### **Parking Areas**

Adequate parking areas have been provided for visitor convenience where they are needed. No further expansion of parking areas should occur except to protect the resource or for public safety.

#### Horseback Riding

Horseback use is primarily by those who camp within Pigeon River Country. Currently, horseback use is kept in check by the number of designated horse campsites available and a group campsite system. No new horse campsites will be designated unless there is a significant new land acquisition, and a new campsite is recommended by the Department after consultation with the Advisory Council.—HORSEBACK USE SHALL BE RESTRICTED TO COUNTY ROADS AND FOREST ROADS IDENTIFIED AS OPEN ON THE PIGEON RIVER COUNTRY STATE FOREST VEHICLE ACCESS MAP; THE SHORE TO SHORE RIDING-HIKING TRAIL CAMP; THE ELK HILL TRAIL CAMP; AND JOHNSON'S CROSSING TRAIL CAMP. ALL OTHER TRAILS WILL BE CLOSED TO HORSES UNLESS OTHERWISE APPROVED BY THE DIRECTOR.

Horse droppings from non-certified hay users potentially can spread destructive non-native plant species. In keeping with the management objectives of wild character and low impact, the DNR shall monitor resources impacts and user conflict that result from horseback riding. At least every five years the DNR shall determine if changes are necessary to ensure horse usage is not degrading the resource or causing unacceptable user conflicts. OFF-ROAD OR OFF-TRAIL HORSEBACK USE SHALL BE PROHIBITED.

HORSE CAMPING SHALL BE RESTRICTED TO ELK HILL TRAIL CAMP AND JOHNSON'S CROSSING TRAIL CAMP. THERE WILL BE NO EXPANSION OF EXISTING HORSE CAMPGROUNDS OR THE ADDITION OF HORSE CAMPSITES, AND NO NEW HORSE CAMPGOUNDS WILL BE DESIGNATED UNLESS THERE IS A SIGNIFICANT NEW LAND ACQUISITION, AND A NEW CAMPGROUND IS RECOMMENDED BY THE DNR DIRECTOR AFTER CONSULTATION WITH THE ADVISORY COUNCIL.

#### **Bicycling**

In keeping with the management objectives of wild character and low impact, the DNR shall monitor resource impacts and user conflict that could result from bicycling. Bicycles will be restricted to epen roads, trails, pathways and management roads-COUNTY ROADS, FOREST ROADS IDENTIFIED AS OPEN ON THE PIGEON RIVER COUNTRY STATE FOREST VEHICLE ACCESS MAP, AND THE HIGH COUNTRY TRAIL PATHWAY. ALL OTHER TRAILS WILL BE CLOSED TO BICYCLES UNLESS OTHERWISE APPROVED BY THE DIRECTOR. Off-road or off-trail biking shall be prohibited. At least every five years the DNR shall determine if changes are necessary to ensure bicycling is not degrading the resource or causing unacceptable user conflicts.

#### **Commercial Use and Events**

The guidelines established in this Concept of Management call for conservative stewardship and a closer review and management of uses that threaten the unique and wild character of Pigeon River Country. All Use and Event Permit applications should be evaluated in a manner consistent with DNR Procedure 26.04-04 and according to the recreational use criteria recommended in this document. As provided for in DNR Procedure 26.04-04, special criteria will be developed for the PRC which will be applied to all Use and Event Permit applications. The Advisory Council will review the special criteria. If there are reasonable alternatives to conduct the activity outside of the Pigeon River Country State Forest PRC, applicants should be encouraged to look elsewhere.

#### Wildlife Viewing

Viewing opportunities abound in Pigeon River Country PRC and are in harmony with the wild character when done with knowledge and respect for the wildlife being observed as well as for other wildlife viewers. Large groups and overuse of certain areas at certain times of the year disturb wildlife and compromise the very opportunities that people seek. Management and user education about wildlife viewing are critical and required to ensure a continuing and rewarding experience.

#### **Special Management Areas**

There are certain areas within PRCSF that have special rules, including Green Timbers and Blue Lakes. Some recreation activities are prohibited and/or controlled in these special management areas. These rules should be maintained. Other special management areas may be created to protect or enhance certain attributes.

The DNR shall assess the current status of regulations that affect recreation within the PRC, and work to develop regulations and orders to fully implement the provisions of the Recreation Management Objectives.

# **Vehicular System**

Pigeon River Country has an extensive road system composed of several types of roads which are available for the use by the public. There are county roads, both year-round and seasonal, and DNR forest roads, almost all of which are two-track roads that sometimes are not capable of passage by a conventional two-wheel drive vehicle. There are no federal or state highways in the Pigeon River Country PRC.

There are about 290 miles of county and forest roads which appear on maps as open for use by the public. About 175 miles are in the county road systems of Cheboygan, Otsego and Montmorency counties. The remaining 115 miles are forest roads managed by the DNR. Signs will be placed at points where roads enter the area, advising visitors they are entering Pigeon River Country. Signs will advise that special rules and regulations apply in the PRC.

Many of the county and forest roads are in poor to fair condition. Some are impassable by two-wheel drive vehicles most of the year, and some are not recognizable as roads. Roads range in developed condition from a few miles of paved county roads primarily on the edge of Pigeon River Country PRC, to gravel roads, to two-track roads. Maintenance of these roads by the counties and the DNR varies from good to very poor, depending on the developed condition of the road, its use, and available funding. In spring, thawing and excess water create difficulties in many places.

The 1973 Concept of Management recommended that many roads needed to be closed when it said:

"Generally speaking, there is adequate road access to most places where access is needed or desirable. In many areas there are far more roads than are needed or are desirable for best use. Most unneeded roads and drivable trails are not county roads, but a few are.

"Altering an established road system is difficult, may be costly, and has long lasting effects. Decisions, whether to close or abandon a road, improve it or to build a new route, should be the result of careful deliberation and consultation with people affected. In the case of closing county roads, a sequence of petitioning, public hearings and then action is needed. This, of course, requires the cooperation of the county road commission involved. Where other roads or trails are to be altered, an administrative decision is sufficient. It should have local approval and support."

After a few years of development, including public input meetings and discussions at several Advisory Council meetings, a Vehicle Access Plan for the PRC was finalized by a Land Use Order of the Director on November 2, 1990. Implementation of the plan began in 1991. The Vehicle Access Plan is a critical tool for retaining the wild character of the Pigeon River Country. State Forest

# **Vehicle Access Plan Changes**

Review of the Vehicle Access Plan should occur regularly. Recommendations for minor changes should begin at the annual Compartment Review and then proceed to the Eastern NORTHERN Lower Peninsula Eco Team review described below THROUGH THE DNR REVIEW PROCESS. Where opportunities are available to reduce vehicle access that is

detrimental to the objectives of the PRC, closures should be sought. In limited instances, additional and/or alternate vehicle access will be considered. Provisions for informing PRC users of access rules and guidelines must be a priority. Law enforcement officers are very important for successful implementation of the Vehicle Access Plan.

The Pigeon River Country Vehicle Access Plan is primarily contained within Land Use Order of the Director (LUOD) No.4.34. This LUOD along with its map specifies which forest roads are open for wheeled motorized vehicular travel. County roads are shown as part of the Pigeon River Country State Forest Access Map but are not affected by the LUOD.

The most recent version of the Vehicle Access Plan in LUOD 4.34 needs to be updated BY THE DNR, AND EXPANDED to include lands and roads which are now within the boundaries of the Pigeon River Country PRC. In addition to the Blue Lakes tract in Montmorency County, and some small acreages in Otsego County, there are approximately 5,500 acres of State land in the northeast part of the PRC in Cheboygan County, as well as about 3,200 acres in the south in Otsego County commonly referred to as the "Johnson's Crossing Area" which have been added ANNEXED and need to be incorporated into the Vehicle Access Plan.

Changes to the overall Vehicle Access Plan will be reviewed and approved by the Eastern Lower Peninsula Eco Team relative to any proposed forest road closures. This is in keeping with PRC Certification Requirements for closure or control of forest roads. It includes formal review in front of the NRC after Public Notice through the Land Use Order of the Director process. Proposed changes will be reviewed by the Advisory Council before being reviewed by the Eco Team. PROPOSED CHANGES TO THE VEHICLE ACCESS PLAN WILL BE DISCUSSED WITH THE ADVISORY COUNCIL BEFORE INITIATING THE PROCESS FOR OBTAINING DIRECTOR'S APPROVAL.

# **County Roads**

County Road improvement projects involving activities other than routine maintenance should be reviewed by the DNR in consultation with the Advisory Council. In 2002, the Advisory Council entered into a Memorandum of Understanding (MOU) with the Otsego County Road Commission to improve communications about road projects within the Pigeon River Country, and to harmonize where possible the goals of both parties regarding such projects. The MOU classifies road projects by scope, and establishes a procedure for the Advisory Council to review and provide recommendations on projects involving more than ordinary routine maintenance. The Advisory Council is encouraged to pursue similar MOUs with other county road commissions having jurisdiction over roads within the Pigeon River Country. The DNR and the Advisory Council will work with the various road commissions to assure that road projects, to the extent possible, conform to the overall objectives of this Plan-THE CONCEPT.

The closure of county roads involves a sequence of petitioning, notice and public hearings prior to most closures. The DNR will participate when county road abandonment actions occur. The DNR in appropriate circumstances, may petition for county road closure. No through thoroughfares are planned. The counties will be asked to provide maintenance sufficient for needs, but such activities should not promote greater use or encourage higher speed.

#### **Forest Roads**

Maintenance of forest roads by the DNR will vary from good to minimal, depending on the developed condition of the road, its use, and available funding. Routine maintenance will occur as needs, opportunities and available funding are identified. Routine maintenance is defined as what is needed to make the road passable by two-wheel drive vehicles in mid-summer, or to maintain the uses for which the road is open. Major road improvement projects on forest roads will be referred to the Advisory Council for recommendation. Any forest roads approved for permanent closure will be barricaded AND. It will not be used as a management road; it will be

allowed to return to natural conditions. Some tree planting, disking, seeding and fertilizing may be needed to hasten the process.

# **Management Roads**

In addition to roads for public use, a network of management roads is needed to allow maintenance and work vehicles temporary access to most areas. Such a network will not cause vehicular disturbance in secluded areas because of infrequency of use for these purposes. Roads in this category will be closed to public vehicular traffic by the use of gates or other means.

Vegetative cover management will require access to some locations. Where public use is not encouraged, ALLOWED these access routes will be designated as management roads. Haul roads for logging may be planned to become part of the permanent system of management roads. They also may become a part of the non-vehicular recreation system, or they may be closed after a temporary management activity such as a timber harvest has occurred. IN MOST CASES, HAUL ROADS WILL BE CLOSED WHEN TIMBER SALE IS CLOSED.

# Landings

Work to be done using management or other roads requires space for equipment, supplies, and possibly for certain tasks to be performed. Logging requires cleared work sites for the temporary piling of cut products and preliminary processing of timber. The term "landing" will be used to refer to these clearings. Landings will be created throughout the forest as stands are scheduled for maintenance or logging. They will be spaced and sized in a conservative manner. UPON COMPLETION OF EACH USE, A LANDING SHALL BE CLEARED OF DEBRIS AND SLASH, RE-CONTOURED AND A VEGETATION COVER RESTORED AS SPECIFIED IN THE TIMBER SALE CONTRACT OR USE PERMIT.

# Utilities, Alternative Energy, Sand & Gravel, and Landfills

#### **Utilities**

There are no major uses of electric power within Pigeon River Country, and there are no high-voltage electric transmission lines crossing it. It will be the policy that no electric transmission lines will be allowed to cross the area. All NEW utility lines including electric distribution lines and telecommunication lines shall be installed underground ACCORDING TO NRC EASEMENT POLICY AND DEPARTMENT EASEMENT PROCEDURE (NRC POLICY NO. 4605 AND DEPARTMENT PROCEDURE 28.46-05, AS AMENDED OR REPLACED).

Scattered throughout, but most prevalent on outer areas, especially in the northeast portion of Pigeon River Country, are many privately owned parcels. Electric distribution lines and telephone lines currently provide service to many but not to all. If new utility service lines are proposed across state land for areas not presently served, the request(s) will be reviewed under DNR Procedure 26.04-0428.46-05. Should the requests be approved, the utility lines shall be buried according to the procedure NRC POLICY NO. 4605. Easement routes shall follow existing road or utility corridors unless none exist or are unusable.

The Enbridge (formerly Lakehead) oil transmission pipeline as constructed in the 1950's traverses part of the PRC. No new large TRANSMISSION (GAS OR OIL) pipelines will be allowed to traverse the PRC. Outside of the Consent Order boundary, new sales lines needed to serve permitted Oil and Gas facilities will be allowed if the appropriate easement reviews recommend their installation.

Areas or sites that have been disturbed or cleared during installation or construction of utilities, pipelines, roads and other types of activities on state-owned property, are required to be restored by the contractor/Grantee to DNR standards. This includes erosion control and site stabilization work as well as vegetation restoration. The DNR has developed standard specifications for such restoration on state-owned land in the Northern Lower Peninsula. Similar, more detailed specifications have been developed for the Pigeon River Country PRC and will be utilized for restoring disturbed or cleared sites. In most cases they will be used with the intention of creating temporary vegetation cover which will eventually be replaced by vegetation close in composition to that on adjacent sites.

ALL NEW EASEMENTS WILL HAVE VEHICULAR BARRIER REQUIREMENTS TO PROVIDE PROTECTION AS NEEDED FOR ADJACENT LAND AND RESOURCES.

# **Alternative Energy**

No form of alternative energy, such as wind, solar or hydroelectric power, shall be commercially developed within the boundaries of the PRC. Adequate areas exist throughout the state where alternative forms of energy and utilities can be developed and utilized. If a property is acquired with existing alternative energy or utility development on site, except as needed for management purposes, all buildings, antennae, dams, transmission lines, etc., shall be removed and/or disposed of as soon as practicable-POSSIBLE.

In some situations, it may be necessary to establish alternate forms of energy or utilities for use or research within the PRC. In those circumstances, devices used to generate energy shall be of limited size, duration, and visibility needed TO complete the desired task.

#### Sand & Gravel

#### Extraction

The extraction of surface minerals within Pigeon River Country will rarely be allowed. Sand and gravel needed for projects should be obtained from other locations outside of the PRC. There may be an exception for immediate, emergency road repair or minor road maintenance where less than 50 cubic yards of material is needed. There may be an exception to provide for limited extraction in pits and old removal areas to accomplish restoration and reclamation of those sites.

#### **Related Uses**

Asphalt plants shall not be allowed.

Storage of sand and gravel or similar materials shall not be allowed except for limited storage for DNR needs.

Sand and gravel processing shall not occur on state land within Pigeon River Country.

#### **Reclamation Plans**

Reclamation plans should be developed for old removal areas and any new removal areas. Plans should address invasive species issues including control methods.

#### Landfills

The development of landfills shall not be allowed. Any existing landfills or dumps shall remain closed. Solid waste transfer stations AND SIMILAR INSTALLATIONS should be located outside the PRC on non-state-owned land.

# DRAFT Oil and Gas

# **Background**

Oil and gas development began in the Pigeon River Country State Forest (PRCSF) in July 1970, with the successful drilling and completion of the State Charlton 1-4. The resulting controversy over further development led to litigation, court orders, compromise, consent orders, and legislation. The PRCSF Hydrocarbon Development Act, PA 316 of 1980 1980 PA 316; the 1980 Ingham County Circuit Court Judgment (Judgment); the 1980 Amended Stipulation and Consent Order (CO); and the 1976 Unit Agreement, as amended, established guidelines for controlled hydrocarbon development within the PRC. The PRC controversy over oil and gas development inspired THE MUCC TO PROPOSE A FUND THAT BECAME KNOWN AS THE KAMMER LAND TRUST FUND, the idea for the Kammer Fund, which has become the Michigan Natural Resources Trust Fund (Trust Fund) and was established in 1976. It provides for revenue from oil, gas, and mineral production on tax reverted lands statewide to be used to fund public recreation, resource protection, and acquisition of land which promotes public recreation, is environmentally significant, or has scenic beauty.

When the Concept of Management was adopted in 1973, oil and gas development in the PRC was expected under controlled circumstances, but the specifics had yet to be developed. In the years that followed, hydrocarbon development in the area covered by the CO led to drilling of 58 wells, and production of 24 wells totaling over 22 million barrels of oil and 95 billion cubic feet of natural gas as of 2005. These wells are entering a mature phase of production and contributed over \$1.6 million to the Trust Fund, and Fish and Game Fund in 2005.

In addition to the oil and gas development that was allowed by the 1980 compromises, wells have also been drilled within the current PRC boundary, which falls outside the boundary of the CO. Also, Some wells were drilled inside of the CO boundary on private land in the southern portions of the PRC, which were not part of the Unit Agreement. Since 1980, approximately 38 square miles have been added to the dedicated PRC boundary. Some of this land includes privately owned minerals, some of it is comprised of State-owned minerals with existing oil and gas wells and/or leases, and some of these added lands have been leased after their incorporation into the PRC boundary. New well applications in these areas have generally been addressed on an individual basis with no special PRC policy concerning hydrocarbon development.

Lastly, the recent interest in drilling natural gas wells into the Antrim Formation has replaced the previous interest and focus of the CONSENT ORDER (CO), in drilling oil and gas wells into the Guelph (aka Niagaran) Formation. As a result, many more wells have been drilled in close proximity to the PRC boundary.

#### **Consent Order Area**

The CO and amended Unit Agreement are the primary tools governing the operation and abandonment of wells within their boundaries. As the production of oil and gas declines from the wells in the CO Area, it becomes important to manage the timing and procedures for the abandonment of the wells and the restoration of the sites. In order to clarify and consolidate language from several orders, letters and agreements, the DNR and Merit Energy Company (Merit) agreed to several requirements and definitions in the Pigeon River Country State Forest Successor Unit Operator Agreement (UOA) of August 17, 2004 (UOA). Specifically, three areas of special concern relating to the definition of marginal wells, site abandonment and restoration plans, and final oil and gas development plans (adopting the 1987 Final Development Plan) were addressed.

- Marginal Wells The UOA refers to the definition from the December 15, 1980, Ingham County Circuit Court Judgment (Judgment). That Judgment defines a marginal well as "one that no longer produces in paying quantities." Paying quantities is defined as, "that point at which revenues from the well are less than the operating cost of the well." The UOA requires the Unit Operator to submit an annual report to the DNR, which will include annual production records for all PRCSF wells, and an analysis of marginal and shut in wells.
- Abandonment Prior to plugging and abandoning oil and gas wells in the PRCSF, a
  plugging procedure shall first be submitted and approved by the Department of
  Environmental Quality. A site-specific restoration plan shall be submitted to the DNR
  based on the criteria enclosed with the DNR's August 20, 2004 UOA cover letter to Merit
  including the following requirements:

The restoration work shall not commence until the DNR has approved the restoration plan.

Pipelines (flow lines and sales lines) will be removed.

Well pads, pipelines, and the remaining Charlton 4 CPF are located in a variety of forest types. Most of these sites have a variety of vegetation present, which frequently includes exotic species. The goal is to return these sites to a forested state or in some cases, a site or part of a site may be maintained in a non-forested condition. Each site will be evaluated and addressed individually, with the general objective being to remove the exotic component and plant trees. Surface contours shall be restored, to the extent possible, to the original condition.

• Final Oil and Gas Development Plan - The Final Development Plan submitted to the DNR by Shell Western Exploration and Production, Incorporated (SWEPI), on August 3, 1987, stated that SWEPI would "...conclude exploration and drilling in the PRCSF no later than year end 1989..." The UOA, with Merit, further states that the Final Development Plan eliminates the Unit Operator's ability for further exploration for all Unitized Substances. The Unit Agreement defines Unitized Substances as "all oil and gas in any and all formations of the unitized lands..." This effectively ends oil and gas exploration in the PRCSF within the Unit Agreement Area.

#### **Annexed Area**

An area of approximately 38 square miles has been added to the PRC boundary and is not included in the original CO Area. This "Annexed Area" has potential for production from both the Antrim and Niagaran formations. The potential for Antrim production diminishes from south to north, as the formation becomes thinner and shallower until it pinches out generally north of Town Line 34 North (some Antrim potential may exist in T34N, R2W outside of the current PRCSF boundary). There is no evidence at this time of other commercially productive horizons in this vicinity though this does not preclude the possibility that other productive horizons may exist.

Spacing of oil and gas wells is designed to maximize the area which can efficiently and economically be drained by one well, thereby reducing the total number of wells which are needed, and at the same time increase the ultimate production from the field. Well spacing and establishment of drilling units also provides an equitable basis to compensate mineral owners for hydrocarbons drained from their property. Nonetheless, it is possible for adverse drainage of the State's minerals to occur around the perimeter of the PRC where a block of productive acreage may offset non-producing state acreage. Since it is the policy of the DNR to minimize or eliminate adverse drainage, and since it is appropriate for production from the PRC to continue to contribute to the Trust Fund, a policy is needed to minimize adverse drainage under

terms which maintain the values of the PRC. It is possible using modern drilling technologies to directionally drill wells from outside the PRC to bottom-hole locations inside the boundary to produce the State-owned minerals, thereby providing compensation to the State and to the Trust Fund for production of its minerals.

Some parcels in the Annexed Area have existing leases and/or wells on state and/or privately owned minerals. Abandonment and restoration of new wells and infrastructure and, if possible, of existing wells and infrastructure on state owned surface in the Annexed Area will use the same criteria as in the CO area. While the CO does not govern development of these parcels, they are subject to the contractual terms of the existing lease agreements.

# **Hydrocarbon Development Guidelines**

The following elements constitute the guidelines for hydrocarbon development within the PRC:

- The CO Area will continue to be governed by the terms of the Judgment, the CO and the Unit Agreement, as amended. No new wells may be drilled on properties subject to the CO and Unit Agreement. The DNR will not issue new leases in this area.
- The DNR will not issue new development leases in the Annexed Area. Within the Annexed Area, the DNR is subject to existing leases. The DNR will work to implement plans of development to that minimize the impacts to State-owned land. The DNR will not exercise options on existing leases to extend them beyond current terms.
- The DNR will notify the Advisory Council of proposed oil and gas development in the Annexed Area by providing copies of drilling applications and associated plans of development. The DNR will also identify the time frame available to provide comments. When time allows, the DNR will notify the Advisory Council Chair, and the Advisory Council Oil & Gas Committee Chair, when a DNR field review of development plans is scheduled.
- The following guidelines apply to any leases issued and wells drilled to prevent or reduce adverse drainage from State-owned minerals in the Annexed Area, to enable the state to capture revenue from State-owned minerals:
  - Existing drainage of State minerals must be occurring or reasonably imminent as determined by Forest, Mineral and Fire Management Division, prior to considering new wells or leases.
  - Any new leases issued will be classified Non-Development with an additional stipulation which precludes any reclassification.
  - The DNR will notify the Advisory Council Chair and the Advisory Council Oil & Gas Committee Chair when Non-Development leases are being considered.
  - All proposed wells will be subject to an approved development plan which shall, to the extent possible, use existing infrastructure to develop, produce, and market hydrocarbons, and minimize the number of wells.

# **Mineral Acquisition**

As seen from historical developments, the State's ability to adhere to the guiding principles of the PRC is compromised when it does not control mineral rights on a given tract. It shall be a priority for the DNR to acquire mineral rights within the PRC to consolidate ownership and to provide greater control over the mineral development activities within the PRC boundary. The Pigeon River Country Advisory Council and DNR will work together to identify parcels of private mineral and surface ownership which may be available for acquisition. The Advisory Council and DNR will jointly support applications to the Michigan Natural Resources Trust Fund to consolidate State mineral and surface ownership.

When reviewing new acquisitions of property to include in the PRC, the DNR will seek to also acquire mineral rights or seek to limit development of minerals through conservation or other easements.

# Private Land Ownership and Adjacent State Land

There are about 450 (140?) 114 privately owned parcels of land within the boundaries of the Pigeon River Country State Forest. They total approximately 40,500 (7,200?) 7,500 acres. Most are used for recreational purposes. There are a few permanent residences and many seasonal cabins. About 45 percent of all parcels are vacant. Almost all of these in-holdings maintain a wild and scenic character and complement the management goals of the PRC. (Goals and objectives for addressing private land ownership and adjacent state land issues related to this Concept of Management are outlined in Appendix 1.)

The DNR will continue to actively pursue acquisition of available private parcels through purchase, trade, or partnership with land-protection organizations. To expedite acquisition, the DNR will seek the support of the Michigan Natural Resources Trust Fund Board to reinstate the higher point ranking for proposed purchases within the PRC. On those lands that cannot be acquired, conservation easements or other strategies that discourage development will be sought to help ensure compatible land use and habitat management.

Lands surrounding the PRC also are very important for maintaining wildlife habitat and the unique character of Pigeon River Country. These lands, whether state owned or privately owned, serve as a buffer between the PRC and nearby development and should receive as much protection as possible from any use that is inconsistent with the goals of the PRC. This is especially important where these adjacent lands contain valuable riparian or wetland habitats, wildlife travel corridors or species and natural communities of special concern. Proposed management and recreational activities on adjacent State-owned land that may affect the goals and objectives of the PRC should be coordinated with the District Manager.

An important goal of this Concept of Management is to achieve cooperative and coordinated management of private lands within and adjacent to the PRC. The DNR should continue to support efforts to develop and implement private land management strategies that are consistent with the goals and objectives of the PRC. DNR personnel will offer consultation and assistance to private landowners, and they also will seek assistance from, and develop partnerships with, private organizations as well as governmental entities. Specifically, the DNR should maintain its partnership with the Pigeon River Habitat Initiative, (A PARTNERSHIP WHOSE MISSION IS TO WORK WITH PRIVATE LANDOWNERS OUTSIDE THE PRC TO PROTECT THE ECOLOGICAL INTEGRITY AND DIVERSITY OF THE FOREST, AND TO PROVIDE SUSTAINABLE WILDLIFE HABITAT, WATERSHED PROTECITON AND APPROPRIATE WILDLAND RECREATION.) No special restrictions or additional land use controls that directly affect these private lands are implied or intended in this plan, beyond those already existing through Natural River designation.

It is critical that the DNR gain public support by fostering an increased awareness and understanding of the value and uniqueness of Pigeon River Country PRC and its special concepts of management. Public support should be increased by regular communication with conservation organizations, area businesses, local and regional units of government, private landowners and the general public.

# DRAFT Pigeon River Country Advisory Council

To keep the Pigeon River Country true to its founding purpose and responsive to changing conditions and public use, the Pigeon River Country Advisory Council was formed in 1974. The Advisory Council is charged to work with the Department of Natural Resources in an advisory role to implement and monitor compliance with the Concept of Management. The Advisory Council's responsibilities include consideration of plans, programs, activities, and management decisions proposed or conducted within or affecting the Pigeon River Country, solicitation of pertinent information from the DNR, and making recommendations to the Director by written report. The Director is to respond in writing to such recommendations within 60 days if possible. In discharging its responsibilities, the Advisory Council helps to avoid programs or actions with potentially adverse effects, to overcome problems encountered in the management of the PRC, and to develop public support and cooperation for management decisions that advance the objectives of the Concept of Management.

The Advisory Council consists of 18 citizen members and four ex-officio members. THE CITIZEN MEMBERS ARE TO INCLUDE A BALANCE OF REPRESENTATIVES FROM LOCAL AND STATEWIDE ORGANIZATIONS, INCLUDING GOVERNMENT. HISTORICALLY, ORGAINZATIONS THAT HAVE BEEN REPRESENTED WITH ONE SEAT ON THE ADVISORY COUNCIL INLUDE THE CHEBOYGAN COUNTY BOARD OF COMMISSIOINERS, CHEBOYGAN COUNTY ROAD COMMISSION, MICHIGAN COUNCIL, TROUT UNLIMITED, MICHIGAN UNITED CONSERVATION CLUBS, THE OIL AND GAS INDUSTRY, OTSEGO COUNTY BOARD OF COMMISSIONIS, OTSEGO COUNTY ROAD COMMISSION, PIGEON RIVER COUNTRY ASSOCIATION AND WEST MICHIGAN ENVIRONMENTAL ACTION COUNCIL. THE REMAINING CITIZEN MEMBERS GENERALLY HAVE BEEN DRAWN FROM CONSERVATION GROUPS (THREE SEATS), THE TIMBER INDUSTRY (ONE SEAT), MICHIGAN STATE UNIVERSITY (ONE OR TWO SEATS) AND AT LARGE (THREE OR FOUR SEATS). The citizen members are to include a balance of representatives from local and statewide organizations, including governmental organizations. Ex-Officio members include the Unit Manager of the Pigeon River Country State Forest, who is the Advisory Council Secretary, a representative of the Department of Environmental Quality, and the District Fisheries and AREA Wildlife Biologists. The citizen members are appointed by the Director. Each citizen member has one vote. Citizen members' terms are three years, with six members to be appointed each year so as to create staggered terms. Members may be reappointed.

The Advisory Council elects a Chairperson (CHAIR) and a Vice-Chairperson annually from its members. The Chair, with the cooperation of the Secretary, determines its meeting schedule. If meetings are not scheduled by the Advisory Council, meetings are to be called at least annually by the Chair and the Unit Manager or the Director. Advisory Council meetings are conducted, as appropriate, in accordance with "Robert's Rules of Order".

# DRAFT Research

To quantify use, and identify trends and support management decisions, three recreational use surveys were conducted: March 1981 - February 1982; July 1986 - May 1987; and from late summer 1997 to early summer 1998. Activity trends revealed an increase in bicycling, a decrease in firearm deer hunting, an increase in turkey hunting, and an increase in scenic driving and wildlife viewing. Pathway use, fishing and hunting, were the primary activities in the 1997-1998 survey. In addition to these surveys, significant research projects have been conducted on elk, grouse, bear, red-shouldered hawk and pine marten (reintroduced in 1985 in an effort to reestablish their presence in the Lower Peninsula).

Other research projects have used several of the seven sinkhole lakes found in the PRCSF to explore growth and survival of various strains of brook, brown, and rainbow trout. Studies also have been conducted to assess the usefulness of prescribed burning for wildlife and red pine regeneration, and the effects of elk and deer browsing on aspen regeneration.

Resource-related research has been important in resolving natural resource management questions in the Pigeon River Country. The Pigeon River Country will continue to be an attractive place to conduct research on terrestrial and aquatic resources because of the large size and intact nature of its landscape. Appropriate research, including identifying the impacts and conflicts of recreation activities, should continue to be supported.

# **Concept of Management Update Steering Committee**

Natural Resources Commissioner Gerald Hall
Director Rebecca Humphries
RESOURCE MANAGEMENT DEPUTY MINDY KOCH
Forest, Mineral and Fire Management Chief Lynne Boyd
Law Enforcement Chief Alan Marble
Wildlife Chief William Moritz
Fisheries Chief Kelley Smith
Wildlife Assistant Chief Doug Reeves
Wildlife Field Coordinator FISHERIES BASIN COORDINATOR Tammy Newcomb
Advisory Council Chair Peter Gustafson
MICHIGAN CONSERVATION FOUNDATION PRESIDENT BOB Jacobson

# **Concept of Management Update Subcommittee Chairs**

Aquatic Systems Committee: Bob Garner, Natural Resources Commission
Forest Cover Management and Wildlife Habitat Committee: Glen Matthews, Wildlife Division
Introduction and History Committee: Bud Slingerlend, PRC Advisory Council
Oil, Gas, Utilities and Alternative Energy Committee: Tom Wellman, Forest, Mineral and Fire
Management Division

Private Land Ownership Committee: Joe Jarecki, Forest, Mineral and Fire Management Division Recreation and Law Enforcement Committee: Lt. Jeff Gaither, Law Enforcement Division Vehicular System, Sand & Gravel and Local Community Planning Committee: Gerald Hall, Natural Resources Commission

# DRAFT **Appendix 1**

# Private Lands Committee Outline for 2007 Update of PRC **Concept of Management**

GOAL 1: Continue to consolidate State ownership within the boundaries of the Pigeon River Country State Forest (PRC).

OBJECTIVE A: Retain State ownership of all State lands within the PRC, and acquire

private in-holdings by continuing to use the established DNR

acquisition process including purchase, trade, and working with land

protection organizations.

OBJECTIVE B: Enhance protection of undeveloped private land not available for

purchase by acquiring conservation easements through donation or

purchase of development rights.

OBJECTIVE C: Increase opportunities for purchasing private in-holdings by

> reestablishing special initiative points for PRC acquisitions in the Michigan Natural Resources Trust Fund application process.

GOAL 2: Outside of the boundaries of the PRC Encourage management ON LANDS OUTSIDE OF THE BOUNDARIES OF THE PRC consistent with the objectives of the PRC on State and private land where it is desirable in order to protect habitat, watersheds, occurrence sites of species and natural communities of special concern, and corridors between large areas of State ownership. (The corridors would make genetic exchange and colonization between those areas available for plant and animal species.)

OBJECTIVE A: Complete general inventory of areas for protection by creating and

compiling buffer unit maps, and by including special features, and set

general acquisition priorities.

OBJECTIVE B: Work in partnership with landowners toward land protection by

> sharing inventory information and coordinating protection efforts with land conservancies, RMEF, TNC, the Conservation Fund and others.

OBJECTIVE C: Maintain a list of private properties adjacent to the PRC that, if

acquired or protected, would greatly complement some management

aspect of the PRC such as elk or other wildlife travel corridors.

OBJECTIVE D: Develop management criteria for State-owned lands adjacent to the

PRC to identify opportunities to complement management within the

PRC.

GOAL 3: Increase awareness and understanding of the value and uniqueness of the natural

resources of the PRC, and increase public support for the PRC's special

management objectives.

OBJECTIVE A: Develop a communications plan to increase understanding and

support for the PRC. This plan would communicate goals and objectives of PRC management, determine current levels of understanding and misunderstanding, identify public concerns,

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identify key messages and where to focus efforts (target audiences), and develop communication strategies and an implementation plan.

#### **OBJECTIVE B:**

Strengthen partnerships with other conservation organizations, area businesses, and local & AND regional units of government. Obtain their support and assistance in promoting the understanding and values of the uniqueness of the PRC and its special concepts of management.

# DRAFT Bibliography

- 1. A Concept of Management Pigeon River Country (Policies and Guidelines) approved by the Natural Resources Commission (NRC) on December 7, 1973.
- 2005 Natural Resources Commission memo dated February 11 and resubmitted March 14 updating the Objectives and Management section of the Concept of Management approved by the NRC and the DNR Director on March 14, 2005.
- 3. Green Timbers Management Plan approved by the NRC on June 10, 1983.
- 4. 1984 Elk Management Plan approved by the NRC.
- 5. 1988 update of the Elk Management Plan by the DNR Director.
- 6. Unit Agreement for the Development and Operation of the Pigeon River Area I Unit, signed June 16, 1976, and amendments of November 1, 1983 and September 1, 1985.
- 7. Stipulation and Consent Order of June 11, 1976.
- 8. Amended Stipulation and Consent Order of November 24, 1980.
- 9. Act No. 316, Public Acts of 1980, signed December 5, 1980.
- 10. State of Michigan in the Circuit Court for the County of Ingham Judgment of December 15, 1980 by the Honorable Thomas L. Brown, Circuit Court Judge.
- 11. Final Development Plan of August 3, 1987.
- 12. Pigeon River Country State Forest Successor Unit Operator Agreement of August 17, 2004; August 20, 2004 cover letter from FMFM Acting Assistant Chief Boyd to Don Spence, Merit Energy Company; and the attachment to the cover letter Restoration strategies for sites that have been cleared for oil and gas extraction activities in the Pigeon River Country Management Unit dated 8/3/2004 and revised 8/11/2004.
- 13. Memorandum of Understanding between the Otsego County Road Commission and the PRC Advisory Council
- 14. 1990 PIGEON RIVER COUNTRY STATE FOREST ACCESS MAP WITH DIRECTOR'S ORDER DFO-615.90
- 15. 1990 Quiet Air Space Agreement
- 16. 1994 Animal River RIDER Management Plan and 2001 Revision.
- 17. Pigeon River Country State Forest Access Map dated 5/08/90 .REVISED JUNE 1994.
- 18. Land Use Orders of the Director (LUOD) 4.34 Pigeon river country state forest, Cheboygan, Otsego and Montmorency counties, defined; prohibited conduct.
- 19. LUOD 4.39 Shingle mill pathway and high country pathway, Otsego, Cheboygan, Presque isle and Montmorency counties, horses and riding animals, prohibited conduct
- 20. LUOD 7.4 Blue lakes ranch, Montmorency County, vehicle and vessel use, prohibited conduct, exceptions.
- 21. Department of Natural Resources Law Enforcement Division Special Local Watercraft Controls R 281.716.5 Cornwall creek flooding; operation of vessel powered by motor; and R 281.716.6 Dog lake flooding; operation of vessel powered by motor; and R281.769.13 Pickerel lake; operation of vessel powered by motor.
- 22. Fisheries Order FO-222.02A Restricted and Closed Waters for Fisheries Research.
- 23. FO-206.05 Special Fishing Regulations for Coolwater Species on Select Lakes North and South Blue and Robarge (Pike) Lakes.
- 24. Fisheries Order 213.
- 25. Fisheries Order 244.
- 26. Pigeon River Country M. U. Private Land Committee Recommendation for Private Inholding Acquisition dated 3/23/2006.
- 27. Pigeon River Habitat Initiative Partnership Agreement dated June 4, 2001.
- 28. Pigeon River Habitat Initiative Partnership memo from Northern Lower Peninsula Eco Team dated October 31, 2003.
- 29. Pigeon River Habitat Initiative Strategic Plan dated February 21, 2001.
- 30. Pigeon River Habitat Initiative Map revised January 16, 2002.